

LOCKHEED AIRCRAFT CORPORATION		ENGINEERING STUDY <input type="checkbox"/>		LAC - 243						
		CHANGE PROPOSAL <input checked="" type="checkbox"/>								
DATE 11-2-5		AFFECTS : WSPO <input type="checkbox"/>		PROJECT <input checked="" type="checkbox"/>						
NAME OF MAJOR COMPONENT Engine/Fuselage		PART OR LOWEST SUBASSEMBLY		PART NO. & MODEL OR TYPE						
TITLE OF PROPOSAL : J75-P-13B Engine Flight Test										
NATURE OF PROPOSAL : See Sheet 2										
REASON FOR PROPOSAL : To install, instrument and test a J75-P-13B engine in Article 349.										
ES	ESTIMATED COST AND TIME INVOLVED :									
	ADDITIONAL FUNDING REQUIRED :									
CP	ESTIMATED COST FOR KITS OR PARTS : See Page 3									
	ADDITIONAL FUNDING REQUIRED : None SP - 1923									
ITEMS AFFECTED BY PROPOSAL :										
SAFETY	MISSION EFFECT- TIVENESS	PERFORM- ANCE	OPERATING PROCEDURE	INTER- CHANGE- ABILITY	WEIGHT OR WEIGHT & BALANCE	TOOLS & SUPPORT EQUIPMENT	MAINTEN- ANCE PROCEDURE	SERVICE LIFE	FLIGHT MANUAL	MAINTEN- ANCE MANUAL
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD										
SOURCE OF PARTS FOR KIT CFEAE AND LAC				AVAILABILITY _____ WEEKS AFTER APPROVAL See Page 3						
DISPOSITION OF SPARES AFFECTED None										
INITIATED BY : Approved For Release 2002/10/31 : Customer				APPROVED : <del>WSPO</del> PROJECT <i>[Signature]</i> 11/17/65						

NATURE OF PROPOSAL:

A J75P-13B engine will be installed in article 349 and flown to evaluate airplane and engine performance. Certain engine and EPR parameters will be established during the test program.

Modifications to the airframe will be required to accept the engine. These are listed below:

1. New plastic engine air inlet ducts of greater inlet area and improved inlet lip shape will be fabricated and installed.
2. A new engine inlet adapter, with instrumentation "Rake", to adapt the engine inlet to the aircraft duct will be fabricated and installed. The adapter and rake assy will include a new alternator housing bullet.
3. Flexible ducting will be provided from the engine interstage bleed valves to overboard ports built into an engine access door. The interstage bleed valves will be manually controlled by a switch installed in the cockpit.
4. A ramp will be added around the inside periphery of the F.S. 673 ring, and the tail pipe blanket clamp will be modified and re-located to F.S. 673. These changes will help insure sufficient airflow through the fuselage.
5. Engine run-up screens and inlet plugs will be provided for the new inlets.

Instrumentation for both the engine and the airframe will be provided to obtain data in the categories listed below:

1. Engine parameters as required by the engine manufacturer.
2. Inlet duct/engine face pressure survey.
3. Fuselage air and structure temperature.
4. Oil system temperatures.
5. Engine and airframe vibration.

A flight program will be conducted to evaluate engine, and aircraft/engine performance. Basic engine tests will include evaluation of take-off power, low altitude climb, cruise climb, badlands power, emergency climb, normal and emergency air starts, operation during yaw, G's and stall, normal and emergency shifts, idle descent and ground cooling. Aircraft/engine tests will include flights to evaluate performance at maximum power, level at +20 and maximum range.

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NATURE OF PROPOSAL (Cont):

In addition to the above, EPR data will be accumulated and an EPR schedule developed.

Any major modifications to the airframe or engine installation that may be proved necessary by flight experience will be negotiated in a subsequent ECP.

Note: Some auto-pilot testing to determine aircraft attitudes and rates will be conducted concurrently with the engine tests to take advantage of the fact that an oscillograph and other instrumentation will be on board and available.



Schedule:

The aircraft at this time is modified and has entered into Flight Test.

Flight Test of the new engine in Art #349 is scheduled for completion by 11-22-65.